

# PATENT ABSTRACTS OF JAPAN

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(72)Inventor : FUJIWARA RYUHEI

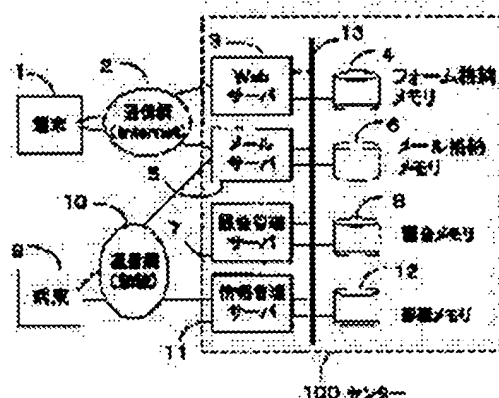
## (54) ELECTRONIC MAIL CHARGING SYSTEM

(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a clear charging system with which charges are not fluctuated by an environment change even in the case of the

transmission of electronic mail through a radio network.

**SOLUTION:** Concerning the charging of electronic mail to be transmitted from a terminal 1 through a center 100 to a terminal 9 by a user, the user writes the desired information to be transmitted onto an electronic form, to which transmission charges are set, and transmits it from the terminal 1 to the center 100 and when transmitting the electronic mail to the terminal 9, the center 100 performs charging. When the normal transmission of electronic mail to the terminal 9 is failed, the electronic mail is sent again and the charging of electronic mail is inhibited at the time of retransmission.



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**CLAIMS**

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**[Claim(s)]**

**[Claim 1]** The 2nd terminal which transmits irregularly the acknowledge signal for checking the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits an electronic mail; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When said acknowledge signal is received from said 2nd terminal and the electronic mail stored in said e-mail storage means is [ the amount storage means of accounting, and ] addressing to a user of said 2nd terminal While transmitting this electronic mail to said 2nd terminal, charge an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and the amount of accounting is recorded on said amount storage means of accounting. The electronic mail accounting system characterized by having the pin center, large which has the control means which forbids accounting of an electronic mail tariff, and; at the time of this resending while resending this electronic mail when normal transmission of said electronic mail to said 2nd terminal goes wrong.

**[Claim 2]** Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. Write in information to transmit to this form and this form is made into an electronic mail. The 2nd terminal which transmits irregularly the acknowledge signal for checking the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When said acknowledge signal is received from said 2nd terminal and the electronic mail stored in said e-mail storage means is [ the amount storage means of accounting, and ] addressing to a user of said 2nd terminal While transmitting this electronic mail to said 2nd terminal, charge an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and the amount of accounting is recorded on said amount storage means of accounting. The electronic mail accounting system characterized by having the pin center, large which has the control means which forbids accounting of an electronic mail tariff, and; at the time of this resending while resending this electronic mail when normal transmission of said electronic mail to said 2nd terminal goes wrong.

**[Claim 3]** Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. Write in information to transmit to this form and this form is made into an electronic mail. The 2nd terminal which transmits irregularly the acknowledge signal for checking the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When said acknowledge signal is received from said 2nd terminal and the electronic mail stored in said e-mail storage means is [ the amount storage means of accounting, and ] addressing to a user of said 2nd terminal The electronic mail accounting system characterized by having the pin center, large which has the control means which charges an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and records the amount of accounting on said amount storage means of accounting, and; while transmitting this electronic mail to said 2nd terminal.

**[Claim 4]** The 2nd terminal which will transmit an arrival-of-the-mail reply signal if the terminating signal which tells the attainment of the electronic mail of the 1st terminal and addressing to; itself which

transmits an electronic mail is received; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When the electronic mail stored in the amount storage means of accounting and said e-mail storage means is addressing to a user of said 2nd terminal When said terminating signal is transmitted to said 2nd terminal and said arrival-of-the-mail reply signal is received from said 2nd terminal, while transmitting this electronic mail to said 2nd terminal Charge an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and the amount of accounting is recorded on said amount storage means of accounting. The electronic mail accounting system characterized by having the pin center,large which has the control means which forbids accounting of an electronic mail tariff, and; at the time of this resending while resending this electronic mail when normal transmission of said electronic mail to said 2nd terminal goes wrong.

[Claim 5] Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. Write in information to transmit to this form and this form is made into an electronic mail. The 2nd terminal which will transmit an arrival-of-the-mail reply signal if the terminating signal which tells the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits is received; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When the electronic mail stored in the amount storage means of accounting and said e-mail storage means is addressing to a user of said 2nd terminal When said terminating signal is transmitted to said 2nd terminal and said arrival-of-the-mail reply signal is received from said 2nd terminal, while transmitting this electronic mail to said 2nd terminal Charge an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and the amount of accounting is recorded on said amount storage means of accounting. The electronic mail accounting system characterized by having the pin center,large which has the control means which forbids accounting of an electronic mail tariff, and; at the time of this resending while resending this electronic mail when normal transmission of said electronic mail to said 2nd terminal goes wrong.

[Claim 6] Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. Write in information to transmit to this form and this form is made into an electronic mail. The 2nd terminal which will transmit an arrival-of-the-mail reply signal if the terminating signal which tells the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits is received; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When the electronic mail stored in the amount storage means of accounting and said e-mail storage means is addressing to a user of said 2nd terminal When said terminating signal is transmitted to said 2nd terminal and said arrival-of-the-mail reply signal is received from said 2nd terminal, while transmitting this electronic mail to said 2nd terminal The electronic mail accounting system characterized by having the pin center,large which has the control means which charges an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and records the amount of accounting on said amount storage means of accounting, and;.

[Claim 7] The 2nd terminal which transmits irregularly the acknowledge signal for checking the attainment of the 1st terminal and the; aforementioned electronic mail which transmits the electronic mail which makes all the users the destination; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, and the amount storage means of accounting, only when said acknowledge signal is received from said 2nd terminal before the value of the time parameter which decreases a predetermined value every for every unit time amount from from and which was set up beforehand was set to 0 from said e-mail storage means, when reading appearance of said electronic mail was carried out and it carried out reading appearance Copy said electronic mail and it transmits to said 2nd terminal. The electronic mail accounting system characterized by having the pin center,large which has the control means which charges an electronic mail tariff at him whenever the value of said time parameter decreases for said every unit time amount to the user of said 1st terminal who transmitted said electronic mail, and records the amount of accounting on said amount storage means of accounting, and;.

[Claim 8] Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. Write in information to transmit to this form and this form as an electronic mail which

makes all the users the destination The 2nd terminal which transmits irregularly the acknowledge signal for checking the attainment of the 1st terminal and the; aforementioned electronic mail which transmits; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, Said electronic mail is read from the amount storage means of accounting, and said e-mail storage means. only when said acknowledge signal is received from said 2nd terminal before the value of the time parameter which decreases a predetermined value every for every unit time amount and which was set up beforehand was set to 0 from from, when reading appearance was carried out Copy the electronic mail stored in said e-mail storage means, and it transmits to said 2nd terminal. The electronic mail accounting system characterized by having the pin center,large which has the control means which charges an electronic mail tariff at him whenever the value of said time parameter decreases for said every unit time amount to the user of said 1st terminal who transmitted said electronic mail, and records the amount of accounting on said amount storage means of accounting, and;.

[Claim 9] The 2nd terminal which transmits irregularly the acknowledge signal for checking the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits the electronic mail with two or more destinations of one copy; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, and the amount storage means of accounting, Copy said electronic mail to said two or more destinations, and it transmits to them. The electronic mail accounting system characterized by having the pin center,large which has the control means which charges an electronic mail tariff at him whenever it copies this electronic mail to the user of said 1st terminal who transmitted said electronic mail, and records the amount of accounting on said amount storage means of accounting, and;.

[Claim 10] Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. Write in information to transmit to this form and this form as an electronic mail with two or more destinations of one copy The 2nd terminal which transmits irregularly the acknowledge signal for checking the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, Copy said electronic mail to the amount storage means of accounting, and said two or more destinations, and it transmits to them. The electronic mail accounting system characterized by having the pin center,large which has the control means which charges an electronic mail tariff at him whenever it copies this electronic mail to the user of said 1st terminal who transmitted said electronic mail, and records the amount of accounting on said amount storage means of accounting, and;.

[Claim 11] The acknowledge signal for checking the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits an electronic mail is transmitted irregularly. The 2nd terminal which will transmit the completion signal of reception if it detects having mistaken said electronic mail and having received that there is nothing; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When said acknowledge signal is received from said 2nd terminal and the electronic mail stored in said e-mail storage means is [ the amount storage means of accounting, and ] addressing to a user of said 2nd terminal If this electronic mail is transmitted to said 2nd terminal and the completion signal of reception of this electronic mail is received from said 2nd terminal In charging an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, recording the amount of accounting on said amount storage means of accounting and not receiving the completion signal of reception from said 2nd terminal The electronic mail accounting system characterized by having the pin center,large which has the control means which resends this electronic mail to said 2nd terminal, and;.

[Claim 12] Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. The acknowledge signal for checking the attainment of the electronic mail of the 1st terminal and addressing to; itself which writes in information to transmit to this form and transmits this form as an electronic mail is transmitted irregularly. The 2nd terminal which will transmit the completion signal of reception if it detects having mistaken said electronic mail and having received that there is nothing; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When said acknowledge signal is received from said 2nd terminal and the electronic mail

stored in said e-mail storage means is [ the amount storage means of accounting, and ] addressing to a user of said 2nd terminal If this electronic mail is transmitted to said 2nd terminal and the completion signal of reception of this electronic mail is received from said 2nd terminal In charging an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, recording the amount of accounting on said amount storage means of accounting and not receiving the completion signal of reception from said 2nd terminal The electronic mail accounting system characterized by having the pin center,large which has the control means which resends this electronic mail to said 2nd terminal, and;.

[Claim 13] If the terminating signal which tells the attainment of the electronic mail of the 1st terminal and addressing to; itself which transmits an electronic mail is received, an arrival-of-the-mail reply signal will be transmitted. The 2nd terminal which will transmit the completion signal of reception if it detects having mistaken said electronic mail and having received that there is nothing; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When the electronic mail stored in the amount storage means of accounting and said e-mail storage means is addressing to a user of said 2nd terminal If this electronic mail is transmitted to said 2nd terminal and the completion signal of reception of this electronic mail is received from said 2nd terminal when said terminating signal is transmitted to said 2nd terminal and said arrival-of-the-mail reply signal is received from said 2nd terminal In charging an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, recording the amount of accounting on said amount storage means of accounting and not receiving the completion signal of reception from said 2nd terminal The electronic mail accounting system characterized by having the pin center,large which has the control means which resends this electronic mail to said 2nd terminal, and;.

[Claim 14] Based on directions of a user, one form is chosen from two or more electronic forms prepared beforehand. If the terminating signal which tells the attainment of the electronic mail of the 1st terminal and addressing to; itself which writes in information to transmit to this form and transmits this form as an electronic mail is received, an arrival-of-the-mail reply signal will be transmitted. The 2nd terminal which will transmit the completion signal of reception if it detects having mistaken said electronic mail and having received that there is nothing; An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When the electronic mail stored in the amount storage means of accounting and said e-mail storage means is addressing to a user of said 2nd terminal If this electronic mail is transmitted to said 2nd terminal and the completion signal of reception of this electronic mail is received from said 2nd terminal when said terminating signal is transmitted to said 2nd terminal and said arrival-of-the-mail reply signal is received from said 2nd terminal In charging an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, recording the amount of accounting on said amount storage means of accounting and not receiving the completion signal of reception from said 2nd terminal The electronic mail accounting system characterized by having the pin center,large which has the control means which resends this electronic mail to said 2nd terminal, and;.

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[Translation done.]

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the accounting system for charging to the electronic mail transmitted through a communication network.

[0002]

[Description of the Prior Art] Generally, the system of an electronic mail is equipped with the communication network which connects the communication network which connects a pin center, large, a master station, and a pin center, large and a master station, an accepting station, and a pin center, large and an accepting station. A pin center, large is equipped with a means to receive and store the electronic mail transmitted from the master station, a means to transmit an electronic mail to an accepting station, and a means to memorize the amount of accounting corresponding to communication link time amount for every user.

[0003] It is placed between communication networks by the wireless network, and when the above-mentioned accepting station is a mobile radio transmitter, a circuit may be compulsorily cut by the interference of the electric wave of fluctuation of received power, other walkie-talkies, etc. by migration of a mobile radio transmitter.

[0004]

[Problem(s) to be Solved by the Invention] In the charging system in the system of the conventional electronic mail mentioned above, also when [ this ] a circuit is cut compulsorily and is re-connected, and it re-connects, there is a trouble that a tariff will be charged.

[0005] It is in the object of this invention offering the accounting system by which accounting is not performed at the time of the re-connection after the line disconnection in the case of transmission of the electronic mail which solved the above troubles and minded the wireless network.

[0006]

[Means for Solving the Problem] The 1st terminal with which the electronic mail accounting system of this invention transmits an electronic mail, The 2nd terminal which transmits irregularly the acknowledge signal for checking attainment of the electronic mail addressed to self, An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When said acknowledge signal is received from said 2nd terminal and the electronic mail stored in said e-mail storage means is [ the amount storage means of accounting, and ] addressing to a user of said 2nd terminal While transmitting this electronic mail to said 2nd terminal, charge an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and the amount of accounting is recorded on said amount storage means of accounting. When normal transmission of said electronic mail to said 2nd terminal goes wrong, while resending this electronic mail, at the time of this resending, it has the pin center, large which has the control means which forbids accounting of an electronic mail tariff.

[0007]

[Embodiment of the Invention] Drawing 1 is the block diagram showing the gestalt of operation of the system of accounting to this invention.

[0008] Reference of drawing 1 constitutes the gestalt of this operation from a radiocommunication network 10 which connects the wire net 2 (for example, Internet) which connects a pin center, large 100, the terminal 1 which is a wire communication terminal, and a pin center, large 100 and a terminal 1, the wireless migration terminal 9, and a pin center, large 100 and a terminal 9.

[0009] A pin center, large 100 is equipped with Local Area Network (LAN) 13 which connects these server computers with the form storing server computer 3 (a "Web server" is called below), the mail server computer 5, the accounting management server computer 7, and the information management server computer 11. (Below, a "server computer" is only called a "server".)

Direct continuation of Web server 3, a mail server 5, the accounting management server 7, and the information management server 11 is carried out to the form storing memory 4, the e-mail storing memory 6, a billing memory 8, and the are recording memory 12 into the pin center, large 100, respectively.

[0010] Moreover, a billing memory 8 is equipped with a utilization tariff table. The tariff corresponding to each form discernment and each correspondence-procedure discernment is registered into this utilization tariff table.

[0011] Drawing 6 is drawing showing the structure of a billing memory 8.

[0012] A billing memory 8 is equipped with the utilization tariff table 61 and the utilization tariff storage section 62 assigned for every user.

[0013] The communication link between Web server 3 and a master station 1 is performed according to a hypertext transfer protocol (Hyper-Text Transfer Protocol (HTTP)) through a communication network 2. In the form storing memory 4 of Web server 3, two or more form data described by HyperText Markup Language (Hyper-Text Markup Language (HTML)) are saved, and the file name of \*\*\*\* is assigned to each form data, respectively.

[0014] A user inputs the file name of desired form data into a terminal 1 first. If the file name as which the terminal 1 was inputted is sent to Web server 3, Web server 3 accesses the form storing memory 4, will read the form data corresponding to the inputted file name, and will transmit to a terminal 1. Of course, this form data is beforehand ordered from form storing memory, and this form data can also be beforehand built in a terminal 1.

[0015] Drawing 2 is the example which displayed a certain form data stored in memory 4 on the screen of a terminal 1. This form data is called "picture postcard form data."

[0016] In drawing 2, the picture field 27 equivalent to a picture postcard front face and the alphabetic character field 25 equivalent to a rear face are displayed on Screen 21 of a terminal 1. the alphabetic character field 25 -- the "common mode" and "express delivery mode" -- it writes down and has the correspondence-procedure display columns 22, such as mode", and the utilization charging indication column 26 which displays a utilization tariff.

[0017] The tariff which should be displayed on the utilization charging indication column 26 can be known by referring to the utilization tariff table within the terminal 1 with which the tariff corresponding to each form discernment and each correspondence procedure is registered. This utilization tariff table is sent to a terminal 1 from the billing memory 8 of the accounting management server 7 through Web server 3, in case a terminal 1 orders form data from form storing memory.

[0018] If the destination column 23 and the communication link information write-in column 24 are furthermore formed in the alphabetic character field 25 and a user inputs a transmitting partner's e-mail address and information to tell into these columns 23 and columns 24, respectively, it will be sent to a pin center, large 100 as an electronic mail of one affair.

[0019] Drawing 3 is drawing showing the DS of an electronic mail.

[0020] As shown in drawing 3, the electronic mail has the form identifier 33 in the address information section which consists of the address 31 of the mail server 5 which is the direct destination in the case of dispatch, the transmitting person address 32, and phase hand address 34 grade, and the header unit other than a transmitting person's commo data 35. This form identifier 33 includes the information concerning the service chosen in the information and the service selection field 28 for identifying each form.

[0021] The address 31 of a mail server 5 is automatically written in, in case the address of the mail



server 5 which the user himself specifies with a master station 1, or is beforehand accumulated in the master station 1 is dispatch. The same is said of the transmitting person address 32. A user sets up the phase hand address with a master station 1 before transmission.

[0022] Drawing 4 is drawing showing the structure of this form identifier 33. This identifier 33 consists of the form discernment section 41, the correspondence-procedure discernment section 42, the appointed time-of-day section 43, the cancellation time-of-day section 44, and the bulletin period section 45.

[0023] The identifier for identifying form is set to the form discernment section 41. In the upper example, the identifier which shows "picture postcard form data" is set up. moreover, the "common mode" and the "express delivery mode" which are displayed on Screen 21 in drawing 2 -- "-- if a user chooses a correspondence procedure from the service selection field 28 for writing down and choosing mode" etc., the selected result will be registered into the correspondence-procedure discernment section 42 as an identifier of a correspondence procedure while being displayed on the correspondence-procedure display column 22.

[0024] As a communication procedure of a terminal 1 and a mail server 5, the protocol of electronic mails, such as a simple mail transfer protocol (Simple Mail Transfer Protocol (SMTP)), can be used.

[0025] First, the case where it is transmission of the electronic mail in in the "common mode" with which the transfer approach chosen by the user used the most fundamental service "postcard form" is explained.

[0026] First, a user receives "postcard form" from the form storing memory 4 through a terminal 1. In addition, it is used when it is already built in the terminal 1. And after choosing the "common mode" of the service selection field 28 of the "postcard form" by which a screen display is carried out at a terminal 1 as a correspondence procedure, while inputting a transmitting partner's e-mail address into the destination column, information to transmit to a communication link information write-in column is written in, and it sends as an electronic mail.

[0027] Thus, mail of addressing to terminal 9 transmitted to the mail server 5 from the terminal 1 is temporarily kept by the e-mail storing memory 6. The information management server 11 will read the mail, if it is investigating whether new mail arrived periodically with reference to the e-mail storing memory 6 through LAN13 and new mail has arrived. At this time, this read mail is eliminated from the inside of the e-mail storing memory 6.

[0028] The information management server 11 recognizes a correspondence procedure by referring to the form identifier 33 of the read mail. The information management server 11 transmits the read mail to the are recording memory 12.

[0029] Drawing 5 is drawing showing the structure of the content of storage of the e-mail are recording memory 12. The e-mail are recording memory 12 contains the user identifier storage section 51, the new-arrival storage section 52, and the archival memory section 53.

[0030] The mail transmitted from the information management server 11 is memorized by the new-arrival storage section 52. From a terminal 9, the user of a terminal 9 accesses the information management server 11 timely through a communication network 2, and requests the information management server 11 to read and transmit the electronic mail memorized by the new-arrival storage section 52 assigned to the terminal 9 of this are recording memory 12.

[0031] The information management server 11 which read the electronic mail from the new-arrival storage section 52 by request of a terminal 9 transmits to the accounting management server 7 by making into accounting information the form identifier 33 and the transmitting person address 32 which are included in this electronic mail while transmitting this electronic mail to a terminal 9. The accounting management server 7 will accumulate the utilization tariff corresponding to the form discernment 41 and the correspondence-procedure discernment 42 in accounting information in a billing memory 8 for every user based on the transmitting person address in accounting information with reference to the utilization tariff table in the billing memory 8 of the accounting management server 7, if accounting information is received from the information management server 11.

[0032] Here, since the communication network 10 between the information management server 11 and an accepting station 9 is a wireless network, before an accepting station 9 takes over an electronic mail

normally according to a wireless condition etc., a communication link may be cut compulsorily.

[0033] For this reason, even if the communications protocol between a terminal 9 and the information management server 11 uses a thing with resending control and the confirmation of receipt and has line disconnection, as it re-connected automatically and it continued reading, it has secured dependability. If this electronic mail is received normally, a terminal 9 will transmit the completion information of reception to the information management server 11. Thus, since the completion information of reception is not transmitted from an accepting station 9 when a communication link is cut compulsorily before an accepting station 9 takes over an electronic mail normally, the information management server 11 resends this electronic mail until it receives the completion information of reception.

[0034] In this case, an information management server is charged only when an electronic mail is first transmitted to an accepting station 9, and it does not charge that electronic mail at the time of resending.

[0035] In the above, although the communications processing and accounting concerning the fundamental service equivalent to ordinary mail were described, other services are described below.

[0036] service -- others -- "express delivery" -- "-- writing down -- " -- there are "direct mail (copy delivery)", "a bulletin", etc.

[0037] Next, the case where the correspondence procedure chosen by the user is transmission of the electronic mail in "express delivery mode" is explained.

[0038] First, a user receives the form to be used from the form storing memory 4 through a terminal 1. In addition, it is used when it is already built in the terminal 1. And after choosing the "express delivery mode" of the service selection field 28 of the form by which a screen display is carried out at a terminal 1 and to be used as a correspondence procedure, while inputting a transmitting partner's e-mail address into the destination column, information to transmit to a communication link information write-in column is written in, and it sends as an electronic mail.

[0039] In "express delivery mode", when the information management server 11 transmits the electronic mail from a terminal 1 to the e-mail are recording memory new-arrival storage section 52 of the user of the terminal 9 which is a communications partner from a mail server 5 in the "common mode" mentioned above, the information management server 11 transmits the terminating signal which shows arrival of the mail to an accepting station 9. The accepting station 9 which received the terminating signal recognizes the information management server 11, and reads e-mail from the new-arrival storage section 52 of the are recording memory 12 of the information management server 11 while it carries out an arrival-of-the-mail response.

[0040] At this time, the information management server 11 notifies accounting information to the accounting server 7.

[0041] If accounting information is transmitted to the accounting management server 7, it will accumulate the utilization tariff corresponding to the form identifier 33 in accounting information in a billing memory 8 for every user based on the transmitting person address in accounting information with reference to the accounting information table in the accounting management server 7.

[0042] Moreover, when the information processing server 11 cannot check the arrival-of-the-mail response from the partner terminal 9, it performs whether it is either of the following processings. The 1st processing is sending the mail which notifies non-\*\* to a master station 1. The 2nd processing is changing a correspondence procedure into the "common mode." Specifically, the content of correspondence-procedure discernment of the form identifier 33 is rewritten. The 3rd processing is discarding the electronic mail in the are recording memory 12 while notifying non-\*\* to a master station.

[0043] Prior setting out with a user and the employment person of a pin center, large can perform these processings. Moreover, a still more nearly additional identifier can be made to be able to add to the identifier in "express delivery mode", and this processing can be performed to it.

[0044] When 1st processing is carried out, the mail in which non-\*\* is shown is sent to a master station 1, 2nd processing is carried out, an accepting station 9 reads an electronic mail from the information management server 11, it carries out 3rd processing and an electronic mail is discarded, the information management server 11 notifies the accounting information to these processings to the accounting

management server 7.

[0045] In addition, accounting when performing 3rd processing serves as a small amount or no charge from these [ 1st ] compared with the case where an electronic mail is normally transmitted in "express delivery mode."

[0046] Moreover, the service "time designated sending" can be performed by application in "express delivery mode."

[0047] First, a user receives the form to be used from the form storing memory 4 through a terminal 1. In addition, it is used when it is already built in the terminal 1. And after choosing "time designated sending" of the service selection field 28 of the form to be used by which a screen display is carried out at a terminal 1 as a correspondence procedure, a transmitting partner's e-mail address is inputted into the destination column. Moreover, time amount to send is inputted. An input of time amount to send registers the information into the appointed time-of-day section 43 of the form identifier 33. And information to transmit to a communication link information write-in column is written in, and it sends as an electronic mail.

[0048] In "time designated sending", the information management server 11 reads periodically the electronic mail which reached the mail server 5. At this time, the information management server 11 judges whether the time of day which the clock which the information management server 11 builds in shows has reached the value written in the appointed time-of-day section 43 of the form identifier 33. When having not reached at the appointed time of day, the information management server 11 returns this electronic mail to a mail server 5.

[0049] Since an addressee did not access an information management server by chance till the appointed time of day, when the addressee has not received the electronic mail, the same processing as "express delivery mode" is performed. That is, the accepting station 9 which transmitted the terminating signal which shows arrival of the mail to an accepting station 9, and received the terminating signal recognizes the information management server 11, and reads e-mail from the new-arrival storage section 52 of the recording memory 12 of the information management server 11 while it carries out an arrival-of-the-mail response. At this time, the information management server 11 accumulates accounting set up as "time designated sending" in a billing memory 8.

[0050] next, the correspondence procedure chosen by the user -- "-- it writes down and the case where it is transmission of the electronic mail of mode" is explained.

[0051] A user uses the "postcard form" built in acquisition or a terminal 1 from the form storing memory 4. and the service selection field of the "postcard form" by which a screen display is carried out at the terminal 1 -- "-- the information which wants to write [ information ] down and to transmit the e-mail address of selection and a transmitting partner for the correspondence procedure of mode" to an input and a communication link information write-in column at the destination column is written in and disseminated. The information management server 11 transmits to the accounting management server 7 by making into accounting information the form identifier contained in this electronic mail while transmitting the electronic mail transmitted through the mail server 5 from the terminal 1 to a terminal 9. The accounting management server 7 accumulates the utilization tariff corresponding to the form discernment 41 and the correspondence-procedure discernment 42 in accounting information in a billing memory 8 for every user based on the transmitting person address in accounting information with reference to the utilization tariff table in the billing memory 8 of the accounting management server 7. "- if it writes down and the information management server 11 carries out the completion information of reception from an accepting station 9 in mode", delivery will be notified to a master station 1 by transmitting advice of the confirmation of receipt to the transmitting person address as an electronic mail. Since the information management server 11 builds in the clock, it can include time information in advice of the confirmation of receipt. With above-mentioned service, while the information management server 11 transmitted the electronic mail to the accepting station 9, the accounting information of this electronic mail was transmitted to the accounting management server 7, the accounting management server 7 which received this accounting information charged the tariff of this electronic mail for every user at the billing memory 8, and the gestalt characterized by not carrying out accounting information

was adopted at the time of resending of this electronic mail. The gestalt of accounting can also be made into the following gestalten in this invention. With this gestalt, if the information management server 11 transmits an electronic mail to an accepting station 9 and receives the completion information of reception from an accepting station 9, accounting information will be transmitted to the accounting management server 7. Consequently, only when an accepting station 9 receives an electronic mail normally from the information management server 11, it charges. In addition, the transmitting person address 32 and the form identifier 33 which are contained in the electronic mail transmitted to the accepting station 9 from the information management server 11 are included in the completion information of reception transmitted to the information management server 11 from an accepting station 9.

[0052] Next, the case where it is transmission of the electronic mail in in the "direct mail mode" with which the transfer approach chosen by the user used "postcard form" is explained.

[0053] A user uses the "postcard form" built in acquisition or a terminal 1 from the form storing memory 4. And the information which wants to transmit \*\* for the special representation destination which shows selection and two or more phase hands for the correspondence procedure in "direct mail mode" to an input and a communication link information write-in column at the destination column is written in and disseminated at a terminal 1 in the service selection field of the "postcard form" by which a screen display is carried out.

[0054] To use this direct mail mode, an addresser needs to register into an information management server beforehand the special representation destination which shows two or more phase hands. When the information management server 11 reads an electronic mail with this representation destination, the information management server 11 carries out the copy transfer of that electronic mail about all those registered phase hands at the are recording memory new-arrival storage section 52.

[0055] In this case, the information management server 11 notifies the accounting information according to the number of copies to the accounting server 7 at the time of a copy transfer, and an accounting management server performs accounting to a transmitting agency.

[0056] Moreover, when carrying out a copy transfer at the are recording memory new-arrival storage section 52, the cancellation time-of-day section 44 equivalent to a postal cancellation can be written in in the form identifier 33, and the information management server 11 can also delete automatically the mail which has gone through fixed time amount from the time of day of a cancellation in all users' new-arrival memory arrival section.

[0057] Next, the case where it is transmission of the electronic mail in in the "bulletin mode" with which the transfer approach chosen by the user used "postcard form" is explained.

[0058] "Bulletin mode" can perform the bulletin which limited the period.

[0059] A user uses the "postcard form" built in acquisition or a terminal 1 from the form storing memory 4. And the correspondence procedure in "bulletin mode" is chosen in the service selection field of the "postcard form" by which a screen display is carried out at the terminal 1, a desired bulletin period is inputted, and information to transmit to a communication link information write-in column is written in and disseminated.

[0060] If a desired bulletin period is inputted, it will register with the bulletin period section 45 of the form identifier 33.

[0061] The electronic mail sent from the terminal 1 in "bulletin mode" is transmitted to the bulletin memory which has the accessible user identifier 51 from two or more users prepared in the are recording memory 12 of the information management server 11 through the mail server 5.

[0062] The bulletin period section 45 contains the time parameter which decreases a predetermined value every for every unit time amount which shows a bulletin period and which was set up beforehand. Reduction of this time parameter is started from the time of an electronic mail being transmitted to bulletin memory.

[0063] The information management server 11 subtracts the value until a time parameter is set to 0, and it remits accounting information to the accounting management server 7 at every unit passage of time.

[0064] If the request which transmits the electronic mail which is in bulletin memory from a terminal 9

to a terminal 9 is before a time parameter is set to 0, the information management server 11 will copy this electronic mail, and will transmit to a terminal 9.

[0065] When a time parameter is set to 0, the information management server 11 eliminates this electronic mail from the recording memory 12.

[0066] in addition -- the gestalt of above-mentioned operation -- a terminal 1 -- a wire communication machine and a terminal 9 -- a mobile radio transmitter -- moreover -- although the communication network 2 assumed the wire net, and the communication network 10 assumed the case of a wireless network and being explained -- each terminal -- deferring -- that it is the terminal of a formula \*\*\*\* -- each communication network -- all -- a cable network -- or you may be a wireless network altogether.

[0067]

[Effect of the Invention] As mentioned above, there is effectiveness that it can prevent charging in this invention, at the time of the re-connection after the line disconnection in the case of transmission of the electronic mail through a wireless network. Moreover, since the tariff is set to two or more electronic forms prepared beforehand for every correspondence procedure, respectively, the effectiveness of charging a clear tariff is in a user.

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**TECHNICAL FIELD**

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**[Field of the Invention]** This invention relates to the accounting system for charging to the electronic mail transmitted through a communication network.

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PRIOR ART

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[Description of the Prior Art] Generally, the system of an electronic mail is equipped with the communication network which connects the communication network which connects a pin center, large, a master station, and a pin center, large and a master station, an accepting station, and a pin center, large and an accepting station. A pin center, large is equipped with a means to receive and store the electronic mail transmitted from the master station, a means to transmit an electronic mail to an accepting station, and a means to memorize the amount of accounting corresponding to communication link time amount for every user.

[0003] It is placed between communication networks by the wireless network, and when the above-mentioned accepting station is a mobile radio transmitter, a circuit may be compulsorily cut by the interference of the electric wave of fluctuation of received power, other walkie-talkies, etc. by migration of a mobile radio transmitter.

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EFFECT OF THE INVENTION

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[Effect of the Invention] As mentioned above, there is effectiveness that it can prevent charging in this invention, at the time of the re-connection after the line disconnection in the case of transmission of the electronic mail through a wireless network. Moreover, since the tariff is set to two or more electronic forms prepared beforehand for every correspondence procedure, respectively, the effectiveness of charging a clear tariff is in a user.

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TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Invention] In the charging system in the system of the conventional electronic mail mentioned above, also when [ this ] a circuit is cut compulsorily and is re-connected, and it re-connects, there is a trouble that a tariff will be charged.

[0005] It is in the object of this invention offering the accounting system by which accounting is not performed at the time of the re-connection after the line disconnection in the case of transmission of the electronic mail which solved the above troubles and minded the wireless network.

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## MEANS

[Means for Solving the Problem] The 1st terminal with which the electronic mail accounting system of this invention transmits an electronic mail, The 2nd terminal which transmits irregularly the acknowledge signal for checking attainment of the electronic mail addressed to self, An e-mail storage means to receive and store said electronic mail transmitted from said 1st terminal, When said acknowledge signal is received from said 2nd terminal and the electronic mail stored in said e-mail storage means is [ the amount storage means of accounting, and ] addressing to a user of said 2nd terminal While transmitting this electronic mail to said 2nd terminal, charge an electronic mail tariff at the user of said 1st terminal who transmitted said electronic mail, and the amount of accounting is recorded on said amount storage means of accounting. When normal transmission of said electronic mail to said 2nd terminal goes wrong, while resending this electronic mail, at the time of this resending, it has the pin center, large which has the control means which forbids accounting of an electronic mail tariff.

[0007]

[Embodiment of the Invention] Drawing 1 is the block diagram showing the gestalt of operation of the system of accounting to this invention.

[0008] Reference of drawing 1 constitutes the gestalt of this operation from a radiocommunication network 10 which connects the wire net 2 (for example, Internet) which connects a pin center, large 100, the terminal 1 which is a wire communication terminal, and a pin center, large 100 and a terminal 1, the wireless migration terminal 9, and a pin center, large 100 and a terminal 9.

[0009] A pin center, large 100 is equipped with Local Area Network (LAN) 13 which connects these server computers with the form storing server computer 3 (a "Web server" is called below), the mail server computer 5, the accounting management server computer 7, and the information management server computer 11. (Below, a "server computer" is only called a "server".)

Direct continuation of Web server 3, a mail server 5, the accounting management server 7, and the information management server 11 is carried out to the form storing memory 4, the e-mail storing memory 6, a billing memory 8, and the are recording memory 12 into the pin center, large 100, respectively.

[0010] Moreover, a billing memory 8 is equipped with a utilization tariff table. The tariff corresponding to each form discernment and each correspondence-procedure discernment is registered into this utilization tariff table.

[0011] Drawing 6 is drawing showing the structure of a billing memory 8.

[0012] A billing memory 8 is equipped with the utilization tariff table 61 and the utilization tariff storage section 62 assigned for every user.

[0013] The communication link between Web server 3 and a master station 1 is performed according to a hypertext transfer protocol (Hyper-Text Transfer Protocol (HTTP)) through a communication network 2. In the form storing memory 4 of Web server 3, two or more form data described by HyperText Markup Language (Hyper-Text Markup Language (HTML)) are saved, and the file name of \*\*\*\* is assigned to each form data, respectively.

[0014] A user inputs the file name of desired form data into a terminal 1 first. If the file name as which

the terminal 1 was inputted is sent to Web server 3, Web server 3 accesses the form storing memory 4, will read the form data corresponding to the inputted file name, and will transmit to a terminal 1. Of course, this form data is beforehand ordered from form storing memory, and this form data can also be beforehand built in a terminal 1.

[0015] Drawing 2 is the example which displayed a certain form data stored in memory 4 on the screen of a terminal 1. This form data is called "picture postcard form data."

[0016] In drawing 2, the picture field 27 equivalent to a picture postcard front face and the alphabetic character field 25 equivalent to a rear face are displayed on Screen 21 of a terminal 1. the alphabetic character field 25 -- the "common mode" and "express delivery mode" -- "-- it writes down and has the correspondence-procedure display columns 22, such as mode", and the utilization charging indication column 26 which displays a utilization tariff.

[0017] The tariff which should be displayed on the utilization charging indication column 26 can be known by referring to the utilization tariff table within the terminal 1 with which the tariff corresponding to each form discernment and each correspondence procedure is registered. This utilization tariff table is sent to a terminal 1 from the billing memory 8 of the accounting management server 7 through Web server 3, in case a terminal 1 orders form data from form storing memory.

[0018] If the destination column 23 and the communication link information write-in column 24 are furthermore formed in the alphabetic character field 25 and a user inputs a transmitting partner's e-mail address and information to tell into these columns 23 and columns 24, respectively, it will be sent to a pin center, large 100 as an electronic mail of one affair.

[0019] Drawing 3 is drawing showing the DS of an electronic mail.

[0020] As shown in drawing 3, the electronic mail has the form identifier 33 in the address information section which consists of the address 31 of the mail server 5 which is the direct destination in the case of dispatch, the transmitting person address 32, and phase hand address 34 grade, and the header unit other than a transmitting person's commo data 35. This form identifier 33 includes the information concerning the service chosen in the information and the service selection field 28 for identifying each form.

[0021] The address 31 of a mail server 5 is automatically written in, in case the address of the mail server 5 which the user himself specifies with a master station 1, or is beforehand accumulated in the master station 1 is dispatch. The same is said of the transmitting person address 32. A user sets up the phase hand address with a master station 1 before transmission.

[0022] Drawing 4 is drawing showing the structure of this form identifier 33. This identifier 33 consists of the form discernment section 41, the correspondence-procedure discernment section 42, the appointed time-of-day section 43, the cancellation time-of-day section 44, and the bulletin period section 45.

[0023] The identifier for identifying form is set to the form discernment section 41. In the upper example, the identifier which shows "picture postcard form data" is set up. moreover, the "common mode" and the "express delivery mode" which are displayed on Screen 21 in drawing 2 -- "-- if a user chooses a correspondence procedure from the service selection field 28 for writing down and choosing mode" etc., the selected result will be registered into the correspondence-procedure discernment section 42 as an identifier of a correspondence procedure while being displayed on the correspondence-procedure display column 22.

[0024] As a communication procedure of a terminal 1 and a mail server 5, the protocol of electronic mails, such as a simple mail transfer protocol (Simple Mail Transfer Protocol (SMTP)), can be used.

[0025] First, the case where it is transmission of the electronic mail in in the "common mode" with which the transfer approach chosen by the user used the most fundamental service "postcard form" is explained.

[0026] First, a user receives "postcard form" from the form storing memory 4 through a terminal 1. In addition, it is used when it is already built in the terminal 1. And after choosing the "common mode" of the service selection field 28 of the "postcard form" by which a screen display is carried out at a terminal 1 as a correspondence procedure, while inputting a transmitting partner's e-mail address into the destination column, information to transmit to a communication link information write-in column is written in, and it sends as an electronic mail.

[0027] Thus, mail of addressing to terminal 9 transmitted to the mail server 5 from the terminal 1 is temporarily kept by the e-mail storing memory 6. The information management server 11 will read the mail, if it is investigating whether new mail arrived periodically with reference to the e-mail storing memory 6 through LAN13 and new mail has arrived. At this time, this read mail is eliminated from the inside of the e-mail storing memory 6.

[0028] The information management server 11 recognizes a correspondence procedure by referring to the form identifier 33 of the read mail. The information management server 11 transmits the read mail to the are recording memory 12.

[0029] Drawing 5 is drawing showing the structure of the content of storage of the e-mail are recording memory 12. The e-mail are recording memory 12 contains the user identifier storage section 51, the new-arrival storage section 52, and the archival memory section 53.

[0030] The mail transmitted from the information management server 11 is memorized by the new-arrival storage section 52. From a terminal 9, the user of a terminal 9 accesses the information management server 11 timely through a communication network 2, and requests the information management server 11 to read and transmit the electronic mail memorized by the new-arrival storage section 52 assigned to the terminal 9 of this are recording memory 12.

[0031] The information management server 11 which read the electronic mail from the new-arrival storage section 52 by request of a terminal 9 transmits to the accounting management server 7 by making into accounting information the form identifier 33 and the transmitting person address 32 which are included in this electronic mail while transmitting this electronic mail to a terminal 9. The accounting management server 7 will accumulate the utilization tariff corresponding to the form discernment 41 and the correspondence-procedure discernment 42 in accounting information in a billing memory 8 for every user based on the transmitting person address in accounting information with reference to the utilization tariff table in the billing memory 8 of the accounting management server 7, if accounting information is received from the information management server 11.

[0032] Here, since the communication network 10 between the information management server 11 and an accepting station 9 is a wireless network, before an accepting station 9 takes over an electronic mail normally according to a wireless condition etc., a communication link may be cut compulsorily.

[0033] For this reason, even if the communications protocol between a terminal 9 and the information management server 11 uses a thing with resending control and the confirmation of receipt and has line disconnection, as it re-connected automatically and it continued reading, it has secured dependability. If this electronic mail is received normally, a terminal 9 will transmit the completion information of reception to the information management server 11. Thus, since the completion information of reception is not transmitted from an accepting station 9 when a communication link is cut compulsorily before an accepting station 9 takes over an electronic mail normally, the information management server 11 resends this electronic mail until it receives the completion information of reception.

[0034] In this case, an information management server is charged only when an electronic mail is first transmitted to an accepting station 9, and it does not charge that electronic mail at the time of resending.

[0035] In the above, although the communications processing and accounting concerning the fundamental service equivalent to ordinary mail were described, other services are described below.

[0036] service -- others -- "express delivery" -- "-- writing down --" -- there are "direct mail (copy delivery)", "a bulletin", etc.

[0037] Next, the case where the correspondence procedure chosen by the user is transmission of the electronic mail in "express delivery mode" is explained.

[0038] First, a user receives the form to be used from the form storing memory 4 through a terminal 1. In addition, it is used when it is already built in the terminal 1. And after choosing the "express delivery mode" of the service selection field 28 of the form by which a screen display is carried out at a terminal 1 and to be used as a correspondence procedure, while inputting a transmitting partner's e-mail address into the destination column, information to transmit to a communication link information write-in column is written in, and it sends as an electronic mail.

[0039] In "express delivery mode", when the information management server 11 transmits the electronic

mail from a terminal 1 to the e-mail are recording memory new-arrival storage section 52 of the user of the terminal 9 which is a communications partner from a mail server 5 in the "common mode" mentioned above, the information management server 11 transmits the terminating signal which shows arrival of the mail to an accepting station 9. The accepting station 9 which received the terminating signal recognizes the information management server 11, and reads e-mail from the new-arrival storage section 52 of the are recording memory 12 of the information management server 11 while it carries out an arrival-of-the-mail response.

[0040] At this time, the information management server 11 notifies accounting information to the accounting server 7.

[0041] If accounting information is transmitted to the accounting management server 7, it will accumulate the utilization tariff corresponding to the form identifier 33 in accounting information in a billing memory 8 for every user based on the transmitting person address in accounting information with reference to the accounting information table in the accounting management server 7.

[0042] Moreover, when the information processing server 11 cannot check the arrival-of-the-mail response from the partner terminal 9, it performs whether it is either of the following processings. The 1st processing is sending the mail which notifies non-\*\* to a master station 1. The 2nd processing is changing a correspondence procedure into the "common mode." Specifically, the content of correspondence-procedure discernment of the form identifier 33 is rewritten. The 3rd processing is discarding the electronic mail in the are recording memory 12 while notifying non-\*\* to a master station.

[0043] Prior setting out with a user and the employment person of a pin center, large can perform these processings. Moreover, a still more nearly additional identifier can be made to be able to add to the identifier in "express delivery mode", and this processing can be performed to it.

[0044] When 1st processing is carried out, the mail in which non-\*\* is shown is sent to a master station 1, 2nd processing is carried out, an accepting station 9 reads an electronic mail from the information management server 11, it carries out 3rd processing and an electronic mail is discarded, the information management server 11 notifies the accounting information to these processings to the accounting management server 7.

[0045] In addition, accounting when performing 3rd processing serves as a small amount or no charge from these [ 1st ] compared with the case where an electronic mail is normally transmitted in "express delivery mode."

[0046] Moreover, the service "time designated sending" can be performed by application in "express delivery mode."

[0047] First, a user receives the form to be used from the form storing memory 4 through a terminal 1. In addition, it is used when it is already built in the terminal 1. And after choosing "time designated sending" of the service selection field 28 of the form to be used by which a screen display is carried out at a terminal 1 as a correspondence procedure, a transmitting partner's e-mail address is inputted into the destination column. Moreover, time amount to send is inputted. An input of time amount to send registers the information into the appointed time-of-day section 43 of the form identifier 33. And information to transmit to a communication link information write-in column is written in, and it sends as an electronic mail.

[0048] In "time designated sending", the information management server 11 reads periodically the electronic mail which reached the mail server 5. At this time, the information management server 11 judges whether the time of day which the clock which the information management server 11 builds in shows has reached the value written in the appointed time-of-day section 43 of the form identifier 33. When having not reached at the appointed time of day, the information management server 11 returns this electronic mail to a mail server 5.

[0049] Since an addressee did not access an information management server by chance till the appointed time of day, when the addressee has not received the electronic mail, the same processing as "express delivery mode" is performed. That is, the accepting station 9 which transmitted the terminating signal which shows arrival of the mail to an accepting station 9, and received the terminating signal recognizes

the information management server 11, and reads e-mail from the new-arrival storage section 52 of the are recording memory 12 of the information management server 11 while it carries out an arrival-of-the-mail response. At this time, the information management server 11 accumulates accounting set up as "time designated sending" in a billing memory 8.

[0050] next, the correspondence procedure chosen by the user -- "-- it writes down and the case where it is transmission of the electronic mail of mode" is explained.

[0051] A user uses the "postcard form" built in acquisition or a terminal 1 from the form storing memory 4. and the service selection field of the "postcard form" by which a screen display is carried out at the terminal 1 -- "-- the information which wants to write [ information ] down and to transmit the e-mail address of selection and a transmitting partner for the correspondence procedure of mode" to an input and a communication link information write-in column at the destination column is written in and disseminated. The information management server 11 transmits to the accounting management server 7 by making into accounting information the form identifier contained in this electronic mail while transmitting the electronic mail transmitted through the mail server 5 from the terminal 1 to a terminal 9. The accounting management server 7 accumulates the utilization tariff corresponding to the form discernment 41 and the correspondence-procedure discernment 42 in accounting information in a billing memory 8 for every user based on the transmitting person address in accounting information with reference to the utilization tariff table in the billing memory 8 of the accounting management server 7. "- if it writes down and the information management server 11 carries out the completion information of reception from an accepting station 9 in mode", delivery will be notified to a master station 1 by transmitting advice of the confirmation of receipt to the transmitting person address as an electronic mail. Since the information management server 11 builds in the clock, it can include time information in advice of the confirmation of receipt. With above-mentioned service, while the information management server 11 transmitted the electronic mail to the accepting station 9, the accounting information of this electronic mail was transmitted to the accounting management server 7, the accounting management server 7 which received this accounting information charged the tariff of this electronic mail for every user at the billing memory 8, and the gestalt characterized by not carrying out accounting information was adopted at the time of resending of this electronic mail. The gestalt of accounting can also be made into the following gestalten in this invention. With this gestalt, if the information management server 11 transmits an electronic mail to an accepting station 9 and receives the completion information of reception from an accepting station 9, accounting information will be transmitted to the accounting management server 7. Consequently, only when an accepting station 9 receives an electronic mail normally from the information management server 11, it charges. In addition, the transmitting person address 32 and the form identifier 33 which are contained in the electronic mail transmitted to the accepting station 9 from the information management server 11 are included in the completion information of reception transmitted to the information management server 11 from an accepting station 9.

[0052] Next, the case where it is transmission of the electronic mail in in the "direct mail mode" with which the transfer approach chosen by the user used "postcard form" is explained.

[0053] A user uses the "postcard form" built in acquisition or a terminal 1 from the form storing memory 4. And the information which wants to transmit \*\* for the special representation destination which shows selection and two or more phase hands for the correspondence procedure in "direct mail mode" to an input and a communication link information write-in column at the destination column is written in and disseminated at a terminal 1 in the service selection field of the "postcard form" by which a screen display is carried out.

[0054] To use this direct mail mode, an addresser needs to register into an information management server beforehand the special representation destination which shows two or more phase hands. When the information management server 11 reads an electronic mail with this representation destination, the information management server 11 carries out the copy transfer of that electronic mail about all those registered phase hands at the are recording memory new-arrival storage section 52.

[0055] In this case, the information management server 11 notifies the accounting information according

to the number of copies to the accounting server 7 at the time of a copy transfer, and an accounting management server performs accounting to a transmitting agency.

[0056] Moreover, when carrying out a copy transfer at the are recording memory new-arrival storage section 52, the cancellation time-of-day section 44 equivalent to a postal cancellation can be written in in the form identifier 33, and the information management server 11 can also delete automatically the mail which has gone through fixed time amount from the time of day of a cancellation in all users' new-arrival memory arrival section.

[0057] Next, the case where it is transmission of the electronic mail in in the "bulletin mode" with which the transfer approach chosen by the user used "postcard form" is explained.

[0058] "Bulletin mode" can perform the bulletin which limited the period.

[0059] A user uses the "postcard form" built in acquisition or a terminal 1 from the form storing memory 4. And the correspondence procedure in "bulletin mode" is chosen in the service selection field of the "postcard form" by which a screen display is carried out at the terminal 1, a desired bulletin period is inputted, and information to transmit to a communication link information write-in column is written in and disseminated.

[0060] If a desired bulletin period is inputted, it will register with the bulletin period section 45 of the form identifier 33.

[0061] The electronic mail sent from the terminal 1 in "bulletin mode" is transmitted to the bulletin memory which has the accessible user identifier 51 from two or more users prepared in the are recording memory 12 of the information management server 11 through the mail server 5.

[0062] The bulletin period section 45 contains the time parameter which decreases a predetermined value every for every unit time amount which shows a bulletin period and which was set up beforehand. Reduction of this time parameter is started from the time of an electronic mail being transmitted to bulletin memory.

[0063] The information management server 11 subtracts the value until a time parameter is set to 0, and it remits accounting information to the accounting management server 7 at every unit passage of time.

[0064] If the request which transmits the electronic mail which is in bulletin memory from a terminal 9 to a terminal 9 is before a time parameter is set to 0, the information management server 11 will copy this electronic mail, and will transmit to a terminal 9.

[0065] When a time parameter is set to 0, the information management server 11 eliminates this electronic mail from the are recording memory 12.

[0066] in addition -- the gestalt of above-mentioned operation -- a terminal 1 -- a wire communication machine and a terminal 9 -- a mobile radio transmitter -- moreover -- although the communication network 2 assumed the wire net, and the communication network 10 assumed the case of a wireless network and being explained -- each terminal -- deferring -- that it is the terminal of a formula \*\*\*\* -- each communication network -- all -- a cable network -- or you may be a wireless network altogether.

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**DESCRIPTION OF DRAWINGS**

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[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the gestalt of operation of the accounting system of this invention.

[Drawing 2] It is the example which displayed form data on the screen of a terminal 1.

[Drawing 3] It is the DS of the electronic mail sent according to a form identifier.

[Drawing 4] It is the structure of a form identifier.

[Drawing 5] It is the structure of the are recording memory of the mail which an information management server manages.

[Drawing 6] It is drawing showing the structure of a billing memory 8.

[Description of Notations]

- 1 Master Station
- 2 Communication Network
- 3 Form Storing Server Computer (Web Server)
- 4 Form Storing Memory
- 5 Mail Server Computer
- 6 E-mail Storing Memory
- 7 Accounting Management Server Computer
- 8 Billing Memory
- 9 Accepting Station
- 10 Communication Network (Wireless)
- 11 Information Management Server Computer
- 12 Are Recording Memory
- 13 LAN
- 21 Screen of Terminal 1
- 22 The Correspondence-Procedure Display Column
- 23 The Destination Column
- 24 Communication Link Information Write-in Column
- 25 Alphabetic Character Field
- 26 The Utilization Charging Indication Column
- 27 Picture Field
- 28 Service Selection Field
- 31 Mail Server Address
- 32 Transmitting Person Address
- 33 Form Identifier
- 34 Phase Hand Address
- 35 Commo Data
- 36 Attached File
- 41 Form Discernment Section



42 Correspondence-Procedure Discernment Section  
43 The Appointed Time-of-Day Section  
44 Cancellation Time-of-Day Section  
45 Bulletin Period Section  
51 User Discernment Storage Section  
52 New-Arrival Storage Section  
53 Archival Memory Section,  
61 Utilization Tariff Table  
62 Utilization Tariff Storage Section Classified by User  
100 Pin Center,large

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[Translation done.]

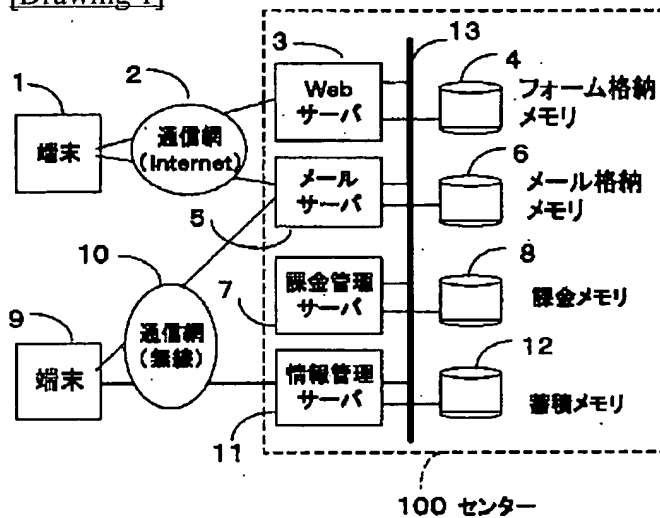
## \* NOTICES \*

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

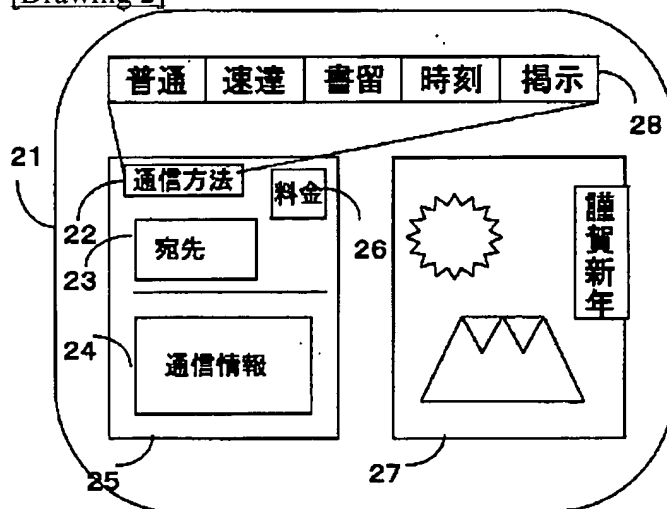
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

## DRAWINGS

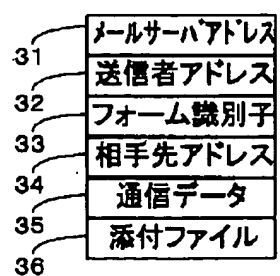
[Drawing 1]



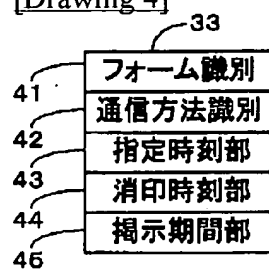
[Drawing 2]



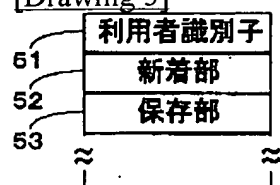
[Drawing 3]



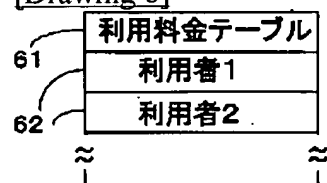
[Drawing 4]



[Drawing 5]



[Drawing 6]



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[Translation done.]